

***What Is Claimed Is:***

1. An isolated nucleic acid molecule comprising a polynucleotide having a nucleotide sequence at least 95% identical to a sequence selected from the group consisting of:

- 5 (a) a nucleotide sequence encoding a polypeptide comprising amino acids from about 1 to about 242 in SEQ ID NO:2;
- (b) a nucleotide sequence encoding a polypeptide comprising amino acids from about 2 to about 242 in SEQ ID NO:2;
- 10 (c) a nucleotide sequence encoding a polypeptide comprising amino acids from about 15 to about 36 in SEQ ID NO:2;
- (d) a nucleotide sequence encoding a polypeptide comprising amino acids from about 42 to about 62 in SEQ ID NO:2;
- (e) a nucleotide sequence encoding a polypeptide comprising amino acids from about 75 to about 95 in SEQ ID NO:2;
- 15 (f) a nucleotide sequence encoding a polypeptide comprising amino acids from about 219 to about 240 in SEQ ID NO:2;
- (g) a nucleotide sequence encoding a polypeptide comprising amino acids from about 96 to about 218 in SEQ ID NO:2;
- (h) a nucleotide sequence encoding the ET2 receptor subunit with all or part of one or more of the transmembrane domains deleted; and
- 20 (i) a nucleotide sequence complementary to any of the nucleotide sequences in (a), (b), (c), (d), (e), (f), (g), or (h).

2. An isolated nucleic acid molecule comprising a polynucleotide which hybridizes under stringent hybridization conditions to a polynucleotide having a nucleotide sequence identical to a nucleotide sequence in (a), (b), (c), (d), (e), (f), (g), (h), or (i) of claim 1 wherein said polynucleotide which hybridizes does not hybridize under stringent hybridization conditions to a polynucleotide having a nucleotide sequence consisting of only A residues or of only T residues.

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(a)

(b)

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- (a) amino acids from about 1 to about 242 in SEQ ID NO:2;
  - (b) amino acids from about 2 to about 242 in SEQ ID NO:2;
  - (c) amino acids from about 15 to about 36 in SEQ ID NO:2;
  - (d) amino acids from about 42 to about 62 in SEQ ID NO:2;
  - (e) amino acids from about 75 to about 95 in SEQ ID NO:2;
  - (f) amino acids from about 219 to about 240 in SEQ ID NO:2;
  - (g) amino acids from about 96 to about 218 in SEQ ID NO:2;
  - (h) the amino acid sequence of the ET2 polypeptide with all or part of one or more of the transmembrane domains deleted; and
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- (i) the amino acid sequence of an epitope-bearing portion of any one of the polypeptides of (a), (b), (c), (d), (e), (f), (g), or (h).

11. An isolated antibody that binds specifically to a polypeptide of claim 10.

12. An isolated nucleic acid molecule comprising a polynucleotide encoding an ET2 polypeptide wherein, except for at least one conservative amino acid substitution, said polypeptide has a sequence selected from the group consisting of:

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- (a) a nucleotide sequence encoding a polypeptide comprising amino acids from about 1 to about 242 in SEQ ID NO:2;
  - (b) a nucleotide sequence encoding a polypeptide comprising amino acids from about 2 to about 242 in SEQ ID NO:2;
  - (c) a nucleotide sequence encoding a polypeptide comprising amino acids from about 15 to about 36 in SEQ ID NO:2;
  - (d) a nucleotide sequence encoding a polypeptide comprising amino acids from about 42 to about 62 in SEQ ID NO:2;
  - (e) a nucleotide sequence encoding a polypeptide comprising amino acids from about 75 to about 95 in SEQ ID NO:2;
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(f) a nucleotide sequence encoding a polypeptide comprising amino acids from about 219 to about 240 in SEQ ID NO:2;

(g) a nucleotide sequence encoding a polypeptide comprising amino acids from about 96 to about 218 in SEQ ID NO:2;

(h) a nucleotide sequence encoding the ET2 receptor subunit with all or part of one or more of the transmembrane domains deleted; and

(i) a nucleotide sequence complementary to any of the nucleotide sequences in (a), (b), (c), (d), (e), (f), (g), or (h).

13. An isolated polypeptide wherein, except for at least one conservative amino acid substitution, said polypeptide has a sequence selected from the group consisting of:

(a) amino acids from about 1 to about 242 in SEQ ID NO:2;

(b) amino acids from about 2 to about 242 in SEQ ID NO:2;

(c) amino acids from about 15 to about 36 in SEQ ID NO:2;

(d) amino acids from about 42 to about 62 in SEQ ID NO:2;

(e) amino acids from about 75 to about 95 in SEQ ID NO:2;

(f) amino acids from about 219 to about 240 in SEQ ID NO:2;

(g) amino acids from about 96 to about 218 in SEQ ID NO:2;

(h) the amino acid sequence of the ET2 polypeptide with all or part of one or more of the transmembrane domains deleted; and

(i) the amino acid sequence of an epitope-bearing portion of any one of the polypeptides of (a), (b), (c), (d), (e), (f), (g), or (h).

14. An isolated nucleic acid molecule comprising a polynucleotide having a nucleotide sequence at least 95% identical to a sequence selected from the group consisting of:

(a) a nucleotide sequence encoding a polypeptide comprising amino acids from about -18 to about 488 in SEQ ID NO:42;

(b) a nucleotide sequence encoding a polypeptide comprising amino acids from about -17 to about 488 in SEQ ID NO:42;

(c) a nucleotide sequence encoding a polypeptide comprising amino acids from about 1 to about 488 in SEQ ID NO:42;

(d) a nucleotide sequence encoding a polypeptide comprising amino acids from about 1 to about 260 in SEQ ID NO:42;

(e) a nucleotide sequence encoding the GABRE receptor subunit with all or part of one or more of the transmembrane domains deleted;

(f) a nucleotide sequence encoding a polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No.

209642;

(g) a nucleotide sequence encoding the mature GABRE polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 209642; and

(h) a nucleotide sequence complementary to any of the nucleotide sequences in (a), (b), (c), (d), (e), (f), or (g).

15. An isolated nucleic acid molecule comprising a polynucleotide which hybridizes under stringent hybridization conditions to a polynucleotide having a nucleotide sequence identical to a nucleotide sequence in (a), (b), (c), (d), (e), (f), (g), or (h) of claim 14 wherein said polynucleotide which hybridizes does not hybridize under stringent hybridization conditions to a polynucleotide having a nucleotide sequence consisting of only A residues or of only T residues.

16. An isolated nucleic acid molecule comprising a polynucleotide having a sequence at least 95% identical to a sequence selected from the group consisting of:

(a) the nucleotide sequence of a fragment of the sequence shown in SEQ ID NO:41, wherein said fragment comprises at least 20 contiguous nucleotides of SEQ ID NO:41, provided that said nucleotide sequence is not

HUKAU66R (SEQ ID NO:43) and HPLBB96F (SEQ ID NO:44), or any subfragment thereof; and

(b) a nucleotide sequence complementary to a nucleotide sequence in (a).

5 17. The nucleotide sequence of a fragment of claim 16, wherein said fragment comprises at least 50 contiguous nucleotides of SEQ ID NO:41.

18. A method for making a recombinant vector comprising inserting an isolated nucleic acid molecule of claim 14 into a vector.

19. A recombinant vector produced by the method of claim 18.

10 20. A method of making a recombinant host cell comprising introducing the recombinant vector of claim 19 into a host cell.

21. A recombinant host cell produced by the method of claim 20.

15 22. A recombinant method for producing a polypeptide, comprising culturing the recombinant host cell of claim 21 under conditions such that said polypeptide is expressed and recovering said polypeptide.

23. An isolated polypeptide having an amino acid sequence at least 95% identical to a sequence selected from the group consisting of:

(a) amino acids from about -18 to about 488 in SEQ ID NO:42;

20 (b) amino acids from about -17 to about 488 in SEQ ID NO:42;

(c) amino acids from about 1 to about 488 in SEQ ID NO:42;

(d) amino acids from about 1 to about 260 in SEQ ID NO:42;

(e) the amino acid sequence of the GABRE polypeptide with all or part of one or more of the transmembrane domains deleted; and

(f) the amino acid sequence of an epitope-bearing portion of any one of the polypeptides of (a), (b), (c), (d), or (e).

5 24. An isolated antibody that binds specifically to a polypeptide of claim 23.

10 25. An isolated nucleic acid molecule comprising a polynucleotide encoding a GABRE polypeptide wherein, except for at least one conservative amino acid substitution, said polypeptide has a sequence selected from the group consisting of:

(a) a nucleotide sequence encoding a polypeptide comprising amino acids from about -18 to about 488 in SEQ ID NO:42;

(b) a nucleotide sequence encoding a polypeptide comprising amino acids from about -17 to about 488 in SEQ ID NO:42;

15 (c) a nucleotide sequence encoding a polypeptide comprising amino acids from about 1 to about 488 in SEQ ID NO:42;

(d) a nucleotide sequence encoding a polypeptide comprising amino acids from about 1 to about 260 in SEQ ID NO:42;

20 (e) a nucleotide sequence encoding the GABRE receptor subunit with all or part of one or more of the transmembrane domains deleted;

(f) a nucleotide sequence encoding a polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No.

A 209642;

25 A ^ (g) a nucleotide sequence encoding the mature GABRE polypeptide having the amino acid sequence encoded by the cDNA clone contained in ATCC Deposit No. 209642; and

(h) a nucleotide sequence complementary to any of the nucleotide sequences in (a), (b), (c), (d), (e), (f), or (g).

26. An isolated polypeptide wherein, except for at conservative amino acid substitution, said polypeptide has a sequence from the group consisting of:

- (a) amino acids from about -18 to about 488 in SEQ ID NO:42;
- (b) amino acids from about -17 to about 488 in SEQ ID NO:42;
- (c) amino acids from about 1 to about 488 in SEQ ID NO:42;
- (d) amino acids from about 1 to about 260 in SEQ ID NO:42;
- (e) the amino acid sequence of the GABRE polypeptide wherein all or part of one or more of the transmembrane domains deleted; and
- (f) the amino acid sequence of an epitope-bearing polypeptide.

any one of the polypeptides of (a), (b), (c), (d), or (e).

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(b) amino acids from about -17 to about 488 in SEQ ID NO:42;

NO:42;

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(e) the amino acid sequence of the GABRE polypeptide with all or part of one or more of the transmembrane domains deleted; and

all or part of one or more of the transmembrane domains deleted; and

any one of the polypeptides of (a), (b), (c), (d), or (e).

A D C

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